 <p>CARLO GAVAZZI</p> <p>CARLO GAVAZZI SPACE SpA</p>	<p>AMS02-PDS</p>	<p>DOC N°: PDS-RP-CGS-067</p> <p>ISSUE : 1 DATE: 11/11/2008</p> <p>PAGE : 1 of 5</p>
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INSPECTION REPORT

<p>APPLICABLE DOC. REF.</p> <p>AMS02-PDS PFM Manufacturing and Inspection Plan PDS-PL-CGS-001 is. 1</p>	<p>PROC. REF.</p> <p>N.A.</p>									
<p>ITEM INSPECTED (Name, P/N, S/N) AMS02-PDS PFM Boards – Visual inspection of Power Board 2 Module Assy p/n:11-AMS02PDS-700.00 s/n:05 and Power Board 2 Module Assy p/n:11-AMS02PDS-700.00 s/n:08 – MIP.</p>										
<p>REQUIREMENT SATISFIED</p> <p>Manufacturing according to aerospace standards</p>										
<p>INSPECTION (Action/Results)</p> <p><u>DESCRIPTION</u></p> <p>Inspection was performed at Carlo Gavazzi Space premises starting on 11 November 2008 and was carried out on the following boards, detail of the inspected boards were below reported:</p> <ol style="list-style-type: none"> Power Board 2 Module Assy p/n:11-AMS02PDS-700.00 s/n:05(pcb s/n:07-006/A) comprised: <ul style="list-style-type: none"> PB2 FPGA Board Assy p/n:11-AMS02PDS-710.00 s/n:07-038/E. PB2 EMI Filter Board Assy p/n:11-AMS02PDS-720.00 s/n:07/018/A. PB2 Front Panel Board Assy p/n:11-AMS02PDS-730.00 s/n:07/020/E. AUX DC/DC Board Assy p/n:11-AMS02PDS-740.00 s/n:07/015/B. Power Board 2 Module Assy p/n:11-AMS02PDS-700.00 s/n:08(pcb s/n:07-008/B) comprised: <ul style="list-style-type: none"> PB2 FPGA Board Assy p/n:11-AMS02PDS-710.00 s/n:07-038/H. PB2 EMI Filter Board Assy p/n:11-AMS02PDS-720.00 s/n:07/018/D. PB2 Front Panel Board Assy p/n:11-AMS02PDS-730.00 s/n:07/020/H. AUX DC/DC Board Assy p/n:11-AMS02PDS-740.00 s/n:07/016/C. <p><u>HARDWARE REVIEW</u></p> <ol style="list-style-type: none"> Power Board 2 Module Assy p/n:11-AMS02PDS-700.00 s/n:05(pcb s/n:07-006/A) comprised: <ul style="list-style-type: none"> PB2 FPGA Board Assy p/n:11-AMS02PDS-710.00 s/n:07-038/E. PB2 EMI Filter Board Assy p/n:11-AMS02PDS-720.00 s/n:07/018/A. PB2 Front Panel Board Assy p/n:11-AMS02PDS-730.00 s/n:07/020/E. AUX DC/DC Board Assy p/n:11-AMS02PDS-740.00 s/n:07/015/B. <p>The following PLVSs (Parts List Variation Sheet) were presented during the inspection:</p> <ul style="list-style-type: none"> 11-AMS02PDS-700.01 rev / – A1 can be considered closed. 11-AMS02PDS-700.01 rev / – A2 can be considered closed. 11-AMS02PDS-700.01 rev / – A3 can be considered closed. 11-AMS02PDS-700.01 rev / – A4 can be considered closed. <table border="1" data-bbox="119 1870 1412 2038"> <tr> <td data-bbox="119 1870 718 1937">Operator</td> <td data-bbox="718 1870 1197 1937">Quality Assurance</td> <td data-bbox="1197 1870 1412 1937">C.C.</td> </tr> <tr> <td data-bbox="119 1937 718 2004">Signature</td> <td data-bbox="718 1937 1197 2004">E. FRANCINI</td> <td data-bbox="1197 1937 1412 2004">C. CINQUEPALLI</td> </tr> <tr> <td data-bbox="119 2004 718 2038">Date</td> <td data-bbox="718 2004 1197 2038">11/11/08</td> <td data-bbox="1197 2004 1412 2038">11/11/08</td> </tr> </table>		Operator	Quality Assurance	C.C.	Signature	E. FRANCINI	C. CINQUEPALLI	Date	11/11/08	11/11/08
Operator	Quality Assurance	C.C.								
Signature	E. FRANCINI	C. CINQUEPALLI								
Date	11/11/08	11/11/08								

 <p>CARLO GAVAZZI</p> <p>CARLO GAVAZZI SPACE SpA</p>	<p>AMS02-PDS</p>	<p>DOC N°: PDS-RP-CGS-067</p> <p>ISSUE : 1 DATE: 11/11/2008</p> <p>PAGE : 2 of 5</p>
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INSPECTION REPORT

<p>APPLICABLE DOC. REF.</p> <p>See page 1</p>	<p>PROC. REF.</p> <p>See page 1</p>			
<p>ITEM INSPECTED (Name, P/N, S/N)</p> <p>See page 1</p>				
<p>REQUIREMENT SATISFIED</p> <p>See page 1</p>				
<p>INSPECTION (Action/Results)</p> <ul style="list-style-type: none"> • 11-AMS02PDS-700.01 rev / – A12 can be considered closed. • 11-AMS02PDS-700.01 rev / – A16 can be considered closed. • 11-AMS02PDS-700.01 rev / – A19 can be considered closed. • 11-AMS02PDS-700.01 rev / – A22 can be considered closed. • 11-AMS02PDS-710.01 rev A – A1 can be considered closed. • 11-AMS02PDS-710.01 rev A – A2 can be considered closed. • 11-AMS02PDS-710.01 rev A – A3 can be considered closed. • 11-AMS02PDS-710.01 rev A – A6 can be considered closed. • 11-AMS02PDS-710.01 rev A – A13 can be considered closed. • 11-AMS02PDS-710.01 rev A – A14 can be considered closed. • 11-AMS02PDS-720.01 rev A – A1 can be considered closed. • 11-AMS02PDS-720.01 rev A – A2 can be considered closed. • 11-AMS02PDS-730.01 rev A – A1 can be considered closed. • 11-AMS02PDS-730.01 rev A – A2 can be considered closed. • 11-AMS02PDS-730.01 rev A – A4 can be considered closed. • 11-AMS02PDS-740.01 rev / – A1 can be considered closed. • 11-AMS02PDS-740.01 rev / – A2 can be considered closed. • 11-AMS02PDS-740.01 rev / – A3 can be considered closed. • 11-AMS02PDS-740.01 rev / – A4 can be considered closed. • 11-AMS02PDS-740.01 rev / – A12 can be considered closed. • 11-AMS02PDS-740.01 rev / – A14 can be considered closed. • 11-AMS02PDS-740.01 rev / – A15 can be considered closed. • 11-AMS02PDS-740.01 rev / – A18 can be considered closed. 				
<table border="0"> <tr> <td data-bbox="102 1747 638 1935"> <p>Operator</p> <p>Signature</p> <p>Date</p> </td> <td data-bbox="638 1747 1037 1935"> <p>Quality Assurance</p> <p>E. FRANCINI</p> <p>11/11/08</p> </td> <td data-bbox="1037 1747 1461 1935"> <p>C.C.</p> <p>E. CINQUEPACCHI</p> <p>11/11/08</p> </td> </tr> </table>		<p>Operator</p> <p>Signature</p> <p>Date</p>	<p>Quality Assurance</p> <p>E. FRANCINI</p> <p>11/11/08</p>	<p>C.C.</p> <p>E. CINQUEPACCHI</p> <p>11/11/08</p>
<p>Operator</p> <p>Signature</p> <p>Date</p>	<p>Quality Assurance</p> <p>E. FRANCINI</p> <p>11/11/08</p>	<p>C.C.</p> <p>E. CINQUEPACCHI</p> <p>11/11/08</p>		

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<p>REQUIREMENT SATISFIED</p> <p>See page 1</p>							
<p>INSPECTION (Action/Results)</p> <p>The following NCRs were presented during the inspection:</p> <ul style="list-style-type: none"> • NCR-PDS-CGS-C-007(electronic components assembly problems), NCR classified "minor" is closed. • NCR-PDS-CGS-C-032(PB2 outlet lines design improvement), NCR classified "minor" is closed. • NCR-PDS-CGS-C-048(PB2 board bracket conductance optimization), NCR classified "minor" is closed. • NCR-PDS-CGS-C-086(pull down MUX problem), NCR classified "minor" is closed. • NCR-PDS-CGS-C-087(FPGA failure), NCR classified "minor" is closed. • NCR-PDS-CGS-C-015(electronic components assembly problems), NCR classified "minor" is closed. • NCR-PDS-CGS-C-039(electrical connection missing), NCR classified "minor" is closed. • NCR-PDS-CGS-C-044(OVC protection improvement), NCR classified "minor" is closed. <p>The boards have been visually inspected and are ok: no damage, visible clean is ok.</p> <p>2) Power Board 2 Module Assy p/n:11-AMS02PDS-700.00 s/n:08(pcb s/n:07-008/B) comprised:</p> <ul style="list-style-type: none"> • PB2 FPGA Board Assy p/n:11-AMS02PDS-710.00 s/n:07-038/H. • PB2 EMI Filter Board Assy p/n:11-AMS02PDS-720.00 s/n:07/018/D. • PB2 Front Panel Board Assy p/n:11-AMS02PDS-730.00 s/n:07/020/H. • AUX DC/DC Board Assy p/n:11-AMS02PDS-740.00 s/n:07/016/C. <p>The following PLVs (Parts List Variation Sheet) were presented during the inspection:</p> <ul style="list-style-type: none"> • 11-AMS02PDS-700.01 rev / - A1 can be considered closed. • 11-AMS02PDS-700.01 rev / - A2 can be considered closed. • 11-AMS02PDS-700.01 rev / - A3 can be considered closed. • 11-AMS02PDS-700.01 rev / - A4 can be considered closed. <table border="1" data-bbox="111 1792 1463 1942"> <tr> <th data-bbox="111 1792 718 1825">Operator</th> <th data-bbox="718 1792 1117 1825">Quality Assurance</th> <th data-bbox="1117 1792 1463 1825">C.C.</th> </tr> <tr> <td data-bbox="111 1825 718 1942"> <p>Signature</p> <p>Date</p> </td> <td data-bbox="718 1825 1117 1942"> <p><i>E. FRANCINI</i></p> <p><i>11/11/08</i></p> </td> <td data-bbox="1117 1825 1463 1942"> <p><i>C. CINQUEPALMI</i></p> <p><i>11/11/08</i></p> </td> </tr> </table>		Operator	Quality Assurance	C.C.	<p>Signature</p> <p>Date</p>	<p><i>E. FRANCINI</i></p> <p><i>11/11/08</i></p>	<p><i>C. CINQUEPALMI</i></p> <p><i>11/11/08</i></p>
Operator	Quality Assurance	C.C.					
<p>Signature</p> <p>Date</p>	<p><i>E. FRANCINI</i></p> <p><i>11/11/08</i></p>	<p><i>C. CINQUEPALMI</i></p> <p><i>11/11/08</i></p>					

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<p>ITEM INSPECTED (Name, P/N, S/N) See page 1</p>	
<p>REQUIREMENT SATISFIED See page 1</p>	
<p>INSPECTION (Action/Results)</p> <ul style="list-style-type: none"> • 11-AMS02PDS-700.01 rev / – A12 can be considered closed. • 11-AMS02PDS-700.01 rev / – A16 can be considered closed. • 11-AMS02PDS-700.01 rev / – A19 can be considered closed. • 11-AMS02PDS-700.01 rev / – A22 can be considered closed. • 11-AMS02PDS-710.01 rev A – A1 can be considered closed. • 11-AMS02PDS-710.01 rev A – A2 can be considered closed. • 11-AMS02PDS-710.01 rev A – A3 can be considered closed. • 11-AMS02PDS-710.01 rev A – A6 can be considered closed. • 11-AMS02PDS-710.01 rev A – A13 can be considered closed. • 11-AMS02PDS-710.01 rev A – A14 can be considered closed. • 11-AMS02PDS-720.01 rev A – A1 can be considered closed. • 11-AMS02PDS-720.01 rev A – A2 can be considered closed. • 11-AMS02PDS-730.01 rev A – A1 can be considered closed. • 11-AMS02PDS-730.01 rev A – A2 can be considered closed. • 11-AMS02PDS-730.01 rev A – A3 can be considered closed. • 11-AMS02PDS-730.01 rev A – A4 can be considered closed. • 11-AMS02PDS-740.01 rev / – A1 can be considered closed. • 11-AMS02PDS-740.01 rev / – A2 can be considered closed. • 11-AMS02PDS-740.01 rev / – A3 can be considered closed. • 11-AMS02PDS-740.01 rev / – A4 can be considered closed. • 11-AMS02PDS-740.01 rev / – A12 can be considered closed. • 11-AMS02PDS-740.01 rev / – A14 can be considered closed. • 11-AMS02PDS-740.01 rev / – A15 can be considered closed. • 11-AMS02PDS-740.01 rev / – A18 can be considered closed. • 11-AMS02PDS-740.01 rev / – A24 can be considered closed. 	
<p>Operator</p> <p>Signature Date</p>	<p>Quality Assurance</p> <p>E. FRANCINI 11/11/08</p> <p>C.C. C. CINQUEPACCHI 11/11/08</p>

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ITEM INSPECTED (Name, P/N, S/N) See page 1										
REQUIREMENT SATISFIED See page 1										
INSPECTION (Action/Results) <p>The following NCRs were presented during the inspection:</p> <ul style="list-style-type: none"> • NCR-PDS-CGS-C-010(electronic components assembly problems), NCR classified "minor" is closed. • NCR-PDS-CGS-C-035(PB2 outlet lines design improvement), NCR classified "minor" is closed. • NCR-PDS-CGS-C-048(PB2 board bracket conductance optimization), NCR classified "minor" is closed. • NCR-PDS-CGS-C-091(high consumption from 15V aux power supply), NCR classified "minor" is closed. • NCR-PDS-CGS-C-086(pull down MUX problem), NCR classified "minor" is closed. • NCR-PDS-CGS-C-105(Schmitt trigger inverter damaged), NCR classified "minor" is closed. • NCR-PDS-CGS-C-018(electronic components assembly problems), NCR classified "minor" is closed. • NCR-PDS-CGS-C-039(electrical connection missing), NCR classified "minor" is closed. • NCR-PDS-CGS-C-044(OVC protection improvement), NCR classified "minor" is closed. <p>The boards have been visually inspected and are ok: no damage, visible clean is ok.</p>										
CONCLUSION <p>As it can be evinced by the results of the visual inspection reported on previous section (HARDWARE REVIEW), no discrepancies able to impact the next foreseen activities, have been highlighted.</p> <p>All solder joints are of adequate quality, the soldering process complies to ECSS-Q-70-08A and ECSS-Q-70-38A, all modifications are performed according to ECSS-Q-70-28A.</p> <p>From the H/W point of view the inspected boards can be used to proceed with the next activities:</p> <ul style="list-style-type: none"> - Gluing of some components and threaded hardware parts. - Conformal coating. 										
<table border="0" style="width: 100%;"> <tr> <td style="width: 33%; text-align: center;">Operator</td> <td style="width: 33%; text-align: center;">Quality Assurance</td> <td style="width: 33%; text-align: center;">C.C.</td> </tr> <tr> <td>Signature</td> <td>E. FRANCINI</td> <td>C. CHIOZZI</td> </tr> <tr> <td>Date</td> <td>11/11/08</td> <td>11/11/08</td> </tr> </table>		Operator	Quality Assurance	C.C.	Signature	E. FRANCINI	C. CHIOZZI	Date	11/11/08	11/11/08
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